



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Updates of Interest:

The last detection of highly pathogenic avian influenza detected in domestic poultry in the U.S. was [June 17](#) in Iowa.

Influenza Surveillance Report for the Week Ending June 27, 2015

Highly Pathogenic Avian Influenza A (H5N2) in Michigan

- To date, there have been 12 detections of highly pathogenic avian influenza A (HPAI) (H5N2) in Michigan, all of which have been free-ranging Canada geese in Macomb County.
- HPAI has not been detected in domestic poultry flocks (e.g. commercial, backyard) in Michigan at this time.
- Although the risk of infection is low for people, some HPAI viruses have caused human illness in the past. Signs and symptoms of which have included fever, cough, runny nose, sore throat, headache, muscle aches, difficulty breathing, shortness of breath, diarrhea and red, itchy eyes (conjunctivitis).
- To date, no human cases of these recent HPAI H5 viruses have been detected in the United States.
- The Michigan Department of Health and Human Services (MDHHS) is coordinating with CDC and local health departments on appropriate human health measures in the event that people are exposed to infected or dead birds due to HPAI.
 - As a general precaution, people exposed to HPAI-infected birds will be monitored by their local health department for any signs or symptoms of illness consistent with influenza.
 - To assist in these efforts, MDHHS developed documents that can be found at www.michigan.gov/cdinfo.

Any reports of sick or dying birds should be forwarded immediately to the proper agency:

- For domestic poultry, contact MDARD:
 - M-F 8am-5pm at (800) 292-3939 or after hours/weekends at (517) 373-0440.
- For wildlife, residents who notice a die-off of waterfowl, gulls, or shorebirds, report it to DNR:
 - M-F 8am-5pm at (517) 336-5030 or after hours at (800) 292-7800.
- For more information on reporting sick or dead wild birds, please refer to the [MDHHS avian influenza](#) website.

Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate reports decreased drastically and individual reports decreased. Aggregate reports are much lower while individual reports are similar to levels seen during the same time period last year.

Emergency Department Surveillance

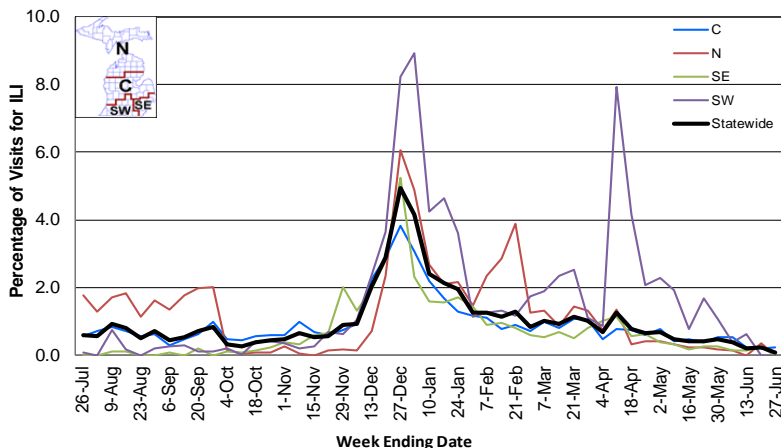
Compared to levels from the week prior, emergency department visits from constitutional complaints remained the same while respiratory complaints decreased. Levels of respiratory complaints are lower while levels of constitutional complaints are similar to levels seen during the same time period last year.

- 4 constitutional alerts (2SW, 2C)
- 4 respiratory alerts (3C, 1N)

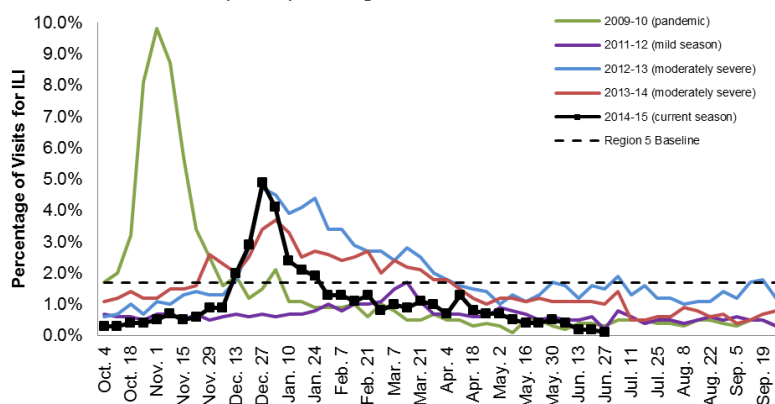
Table of Contents:

Avian Influenza in MI.....	1
Michigan Surveillance.....	1-3
National Surveillance.....	3
International Surveillance....	3
FluBytes	4

Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers, Statewide and Regions 2014-15 Flu Season



Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet): Michigan, Select Seasons



Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 0.1% overall; this is below the regional baseline (1.7%). A total of 4 patient visits due to ILI were reported out of 3,940 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (20 total):

- C (8)
- N (2)
- SE (8)
- SW (2)

Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie DeVita at devitas1@michigan.gov for more information.

Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases, starting on October 1, 2014 and ending April 30, 2015, for Clinton, Eaton, Genesee, and Ingham counties. The cumulative total during the reporting period was 88 pediatric hospitalizations and 374 adult hospitalizations. Based on these counts, there were 45.6 pediatric influenza hospitalizations per 100,000 population and 54.6 adult influenza hospitalizations per 100,000 population within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 9 hospitals (C, SE & SW) reported. Results are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	0	31 (1N, 21C, 4SE, 5SW)
5-17 years	0	33 (28C, 5SE)
18-49 years	0	68 (2N, 12C, 49SE, 5SW)
50-64 years	0	130 (3N, 14C, 99SE, 14SW)
65 years & older	0	529 (20N, 19C, 435SE, 55SW)
Total	0	791 (26N, 94C, 592SE, 79SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported no new positive influenza results. A total of 563 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are in the table below.

Respiratory Virus	# Positive Respiratory Virus Results by Region				Total	# Specimens Antigenically Characterized	# Tested for Antiviral Resistance
	C	N	SE	SW			# Resistant / Total # Tested
2009 A/H1N1pdm				1	1		
Influenza A/H3	113	33	98	248	492	15* (3 A/Texas/50/2012-like**, 12 A/Switzerland/9715293/2013-like)	0 / 146
Influenza B	20	6	19	23	68	68 (48 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†] , 9* B/Phuket/3073/2013-like ^{††}], 17 B/Victoria lineage, 3 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

*Specimens antigenically characterized by CDC; **A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine, A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus; [†]B/Massachusetts/02/2012 virus is the B/Yamagata component of the 2014-15 Northern Hemisphere trivalent and quadrivalent flu vaccines; ^{††}B/Phuket/3073/2013 virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 10 sentinel clinical labs (3SE,2SW,5C) reported influenza results. No labs reported influenza A or B activity. Three labs (SE,SW,C) reported low or sporadic Parainfluenza activity. Two labs (SE,C) reported sporadic RSV activity. Three labs (SE,C) reported low or sporadic Adenovirus activity. One lab (C) reported sporadic hMPV activity. Most testing volumes are low or very low with only a few sites at greater levels.

Influenza Congregate Settings Outbreaks

There were 2 new facility outbreaks were reported to MDHHS (2 unknown etiology/no testing done). There have been a total of 153 respiratory facility outbreaks reported to MDHHS for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	28	12	36	37	113
K-12 School	1		2		3
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Correctional Facility				1	1
Total	45	13	44	51	153

Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. There have been a total of 3 influenza-associated pediatric deaths (1C, 1SE, 1SW) reported to MDHHS for the 2014-15 season.

National: In the United States, 1.1% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.0%. The total of influenza-associated pediatric deaths reported during the 2014-15 season remains at 142. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/. **NOTE:** Influenza surveillance in the U.S. will continue through the summer months with condensed reports available at www.cdc.gov/flu/weekly/; the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

International: Globally, influenza activity has decreased from its peak in early 2015 to low levels in the Northern Hemisphere. There were increases in flu activity in most regions of the Southern Hemisphere but activity is still at low levels, including flu A viruses in Hong Kong, Singapore, southern China, Vietnam, and Sri Lanka. South Africa reported high flu activity with H1N1 and H3N2 both circulating in recent weeks. Summary information is available online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.



AVIAN INFLUENZA NEWS IN NORTH AMERICA

- USDA: Birds affected more than [48 million](#)
 - Last detection in domestic birds June 17
 - Last detection in wild birds was in Michigan (confirmed June 24)
- USDA: [Epidemiologic and other analyses of HPAI-affected poultry flocks](#) (June 15)
- [Hopes rise as avian flu pause continues](#)
- [Biosecurity and vaccination for control of avian influenza](#)
- [Four Arizona counties investigated are free of avian flu so far](#)

CDC PINK BOOK WEBINAR SERIES

CDC is presenting a 15-part webinar series to provide chapter-by-chapter overviews of the 13th edition of Epidemiology and Prevention of Vaccine-Preventable Diseases ("the Pink Book"). The series runs July 8 – October 14. Each one-hour session begins at 12:00 PM, and continuing education credit will be available. Register [here](#).

ALANA'S FOUNDATION ANNUAL FUNDRAISER

Save the date! Alana's Foundation is holding their annual fundraiser on August 6, 2015. Their Summer Concert Bash will be in Pontiac at the Crofoot at 7:30 PM. Tickets are \$35 in advance and \$40 at the door. More info on this year's fundraiser can be found [here](#).



2015-16 COLLEGE FLU CHALLENGE

Enrollment is now open for MDHHS' 2015-16 [College and University Flu Vaccination Challenge](#)! Do you work at a college health clinic and want to increase your students' flu immunization rates? Challenge your rival school to participate in this year's College Flu Challenge! There are already 10 schools enrolled so far! Colleges and universities should enroll at: www.surveymonkey.com/s/FluChallenge1516. If you have any questions about the Flu Challenge, contact me at DeVitaS1@michigan.gov.

MI IMMUNIZATION TIMELY TIPS NEWSLETTER

The latest issue of the MITT newsletter is posted [online](#). This issue has articles on the newest edition of the Pink Book, Alana's Foundation Fundraiser, 2015 AIM Provider Toolkits, an update on our HPV grant, and more!

AVIAN INFLUENZA A(H5N1) NEWS ARTICLES

- [Fatal H5N1 case reported in Egypt](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- *Virology*: [Oseltamivir inhibits influenza virus replication and transmission following ocular-only aerosol inoculation of ferrets](#)
 - Antiviral drugs to treat conjunctivitis caused by RNA viruses not available
 - Oseltamivir efficacy tested following ocular exposure to flu virus
 - Oseltamivir reduced virus replication in ferrets following ocular exposure, limited virus replication in human corneal epithelial cells

OTHER INFLUENZA-RELATED NEWS

- [New law allows Pennsylvania pharmacists to vaccinate kids as young as 9 with flu vaccine](#)
- [GSK upgrade delays supply of adjuvanted H5N1 vaccine](#)
- [Canine flu in Georgia](#)

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

For questions or to be added to the distribution list, please contact Stefanie DeVita at devitas1@michigan.gov.

MDHHS Contributors

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